DIABLOSPORT

# DURAMAX

user manual

# PREDATOR

**TUNABLE PERFORMANCE PROGRAMMER**

ENGINEERED TO RAISE HELL

REV. 03/2003 JM

## *DiabloSport, LLC.*

## *Predator Satisfaction Guarantee/ Return Policy*

All DiabloSport products have a guarantee of satisfaction. If in the first 15 days from date of purchase, you are not satisfied with the results the Predator generates in your vehicle, simply ***restore the factory tune to your vehicle*** and return the Predator to the selling dealer, and pending examination of the tool by DiabloSport, you will receive a refund from your selling dealer. ***Under no circumstances will DiabloSport accept the return of a Predator unit that has a factory tune remaining in it.***

## *Predator Revisions:*

*In an effort to keep the Diablosport Predator at the forefront of technology, Diablosport will offer revisions to the Predator when need be. The following procedure needs to be followed to return a used Predator for a revision update. Please contact Diablosport to receive RMA number, units received without an RMA will be returned to the shipper. Used Predators must be returned to Diablosport directly for update, not the selling dealer. Updates will be free of charge. customer is responsible for round trip freight expenses.*

## Predator Re-Flash Policy

The Predator will marry to the vehicle upon upload of the factory tune and cannot be re-flashed, for any reason, back to a blank tool. This marrying of the Vin # to the tool is what makes it possible for us to allow the vehicle to be re-flashed by GM, and still be re-programmed again by the Predator. Re-flashing of the Predator is not possible without the complete disassembly, replacement and reprogramming of critical components of the Predator tool.

*Diablosport Tech Department*
*561 - 908 - 0040*
*general@diablosport.com*

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***THIS END USER LICENSE AGREEMENT*** *(the "Agreement") is an agreement between you, as the purchaser (the "Purchaser") of either the Diablo Module (the "Module") or the ToolRama hand-held computer unit (the "Unit"), and ProgRama Tools, Inc., DiabloSport, LLC or ToolRama, LLC (collectively, "ToolRama"), as the manufacturer of the Product. The Product and the Unit shall be referred to collectively herein as the "Product."*

***1.*** **Acknowledgment And Acceptance Of Agreement.** If you do not agree to the terms and conditions of this Agreement, do not use the Product. Instead, promptly contact the distributor from which you purchased the Product in writing, requesting a refund of the purchase price. Any use of the Product by you will constitute your agreement to the terms and conditions contained herein.

***2.*** **Grant Of License.** The parties hereto acknowledge that ToolRama is granting a non-transferable restricted license to Purchaser to use the Product for the sole purpose of installation in Purchaser's vehicle. ToolRama shall retain all title, ownership rights and intellectual property rights in and to the Product. Purchaser agrees that Purchaser shall not, directly or indirectly, modify, translate, reverse engineer, decompile, disassemble, or create derivative works based on the Product. Purchaser further agrees not to permit any third parties to modify, translate, reverse engineer, decompile, disassemble, or create derivative works based on the Product. ***3.*** **Disclaimer.** The Product is being sold with no warranties of any kind, express or implied. The Product is not endorsed by the manufacturer of your vehicle and there is no affiliation between ToolRama and the manufacturer of your vehicle. Installation of the Product in your vehicle or use of the Product with your vehicle may limit or void your rights under any warranty provided by the manufacturer of your vehicle, and ToolRama assumes no responsibility in such event. Any warranty not provided herein, and any remedy which, but for this provision, might arise by implication or operation of law, is hereby excluded and disclaimed. The implied warranties of merchantability and of fitness for any particular purpose herein are expressly disclaimed. ***4.*** **No Liability For Damages, Injuries Or Incidental, Special Or Consequential Damages.** Under no circumstances shall ToolRama, Inc., DiabloSport, LLC or ToolRama, LLC, or any other party related to ToolRama, be liable to Purchaser or any other person for any damage to Purchaser's vehicle, loss of use of Purchaser's vehicle, or for personal injuries suffered by any person, or for any incidental, special or consequential damages, whether arising out of negligence, breach of warranty, breach of contract, or otherwise. ToolRama's liability for any damages, loss and/or claims associated with the Product shall be limited to the price of the Product paid by purchaser. Purchaser hereby releases ToolRama from all liability, claims and damages associated with the Products, with the sole exception of ToolRama's liability for the refund of the purchase price of the Product to Purchaser in the event that a court of competent jurisdiction determines the Purchaser suffered damages directly resulting from the malfunction of the Product. ***5.*** **Warranty.** Notwithstanding the provisions of the End User License Agreement, DiabloSport warrants the Product to be free from all defects in material and workmanship for the life of the Product. This limited warranty applies only to the original Purchaser of the Product. This limited warranty does not cover damage caused by modification, alteration, repair or service of the Product by anyone other than DiabloSport, physical abuse, misuse, use in a manner contrary to the instructions, which accompany the Product, or any damage caused by acts of God. Contacting your Distributor or Dealer may make claims for repair service or replacement of the Product pursuant to this limited warranty. The Chip will either be repaired or replaced, at the option of DiabloSport, at no cost to Purchaser, if the defective Product is covered by this limited warranty. DiabloSport's liability pursuant to this limited warranty and for any damages, loss and/or claims associated with the Product shall be limited to the price of the Product paid by Purchaser, or, at DiabloSport's option, repair or replacement of the Product. ***6.*** **State Law.** Some states do not allow limitations of implied warranties, or the exclusion or limitation of incidental, special or consequential damages, so the above limitations may not apply to you. In such states, liability shall be limited to the greatest extent permitted by applicable law.

***7.*** **Governing Law & Venue.** This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, and venue for any legal proceeding or action at law arising out of or construing this Agreement shall lie in the state or federal courts of Orange County, Florida, and the parties specifically waive any other venue.

***DISCLAIMER*** Not legal for sale or use on any pollution controlled motor vehicles. Legal in California ***only*** for racing vehicles which may ***never*** be used upon a highway.

DIABLO SPORT

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For any questions. feel free to contact us at support@diablosport.com

*Before Installing*
*DiabloSport*
*performance tune*

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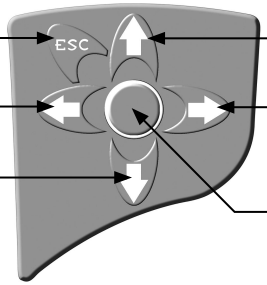
*Please read through the manual before installing tune in your vehicle, failure to follow proper instructions can result in a damaged or disabled PCM (Powertrain Control Module).*

*User **must** ensure that the factory "stock" tune is in the vehicle's PCM before installing the DiabloSport tune.*
*GM dealer re-flashes are the same as stock factory tune.*

*Serious engine damage will occur if the Predator tune is installed over a **non-factory/aftermarket performance tune**, and can not be used in conjunction with other tuning devices such as chips or plug in modules of any kind.*

*Very important!*
*Do not perform any operations on Predator (expect live data diagnostics) while vehicle is running. The vehicle must be parked and engine OFF.*




***ESC Key:*** Scroll page back to previous page

***Arrow left:*** Scroll menu to the left

***Arrow down:*** Scroll down the menu

***Arrow up:*** Scroll up the menu

***Arrow right:*** Scroll menu right
(Use this key to view entire descriptions)

***Enter Key:*** Select parameter highlighted in menu

## Preparing Vehicle for DiabloSport Performance Tune Installation

- Apply parking brake to de-activate daytime running lights.
- Always have all the doors closed while installing the DiabloSport Performance tune, and keep them closed until the process is complete.
- Do not activate any electrical accessories while installing the DiabloSport Performance tune. Ensure that there are no electronic devices wired or plugged into the vehicle that can cause a substantial voltage drop when activated during installation of the DiabloSport Performance tune. Please contact DiabloSport dealer if uncertain about devices that are on your vehicle.
- Certain cellular phones or radio equipment might also cause interference, please remove or turn such devices off.
- Do not try to install tune on a vehicle with a low battery voltage, charge your battery if necessary.
- Unless instructed, never turn the ignition key OFF while the Predator is plugged in diagnostic port.
- Do not unplug the Predator while it is installing the DiabloSport performance tune.

## OBD-II Diagnostic port locations

***2001-03 Duramax***

Driver side underneath dash, left hand side above parking brake.

## *Vehicles equipped with the GM OnStar system*

***Due to the fact that the GM OnStar system sends transmissions periodically to the vehicle we suggest that the system should temporarily be disabled during the installation and modification process.***

If the OnStar system is not disabled during install or modification and the system should receive a transmission in the middle of tune install or backup, the tool will be interrupted and the process will have to be started over again.

To avoid this problem it is recommended that the OnStar system is disabled during tune install, backup and modification.

To disable the OnStar system, please refer to your owner's manual and locate the fuse(s) associated with the OnStar. The OnStar system is disabled when the OnStar light is not lit.

On some vehicles it is necessary to remove more than one fuse; this will be indicated by the OnStar light still lit after removal of the fuse from the engine compartment fuse panel.

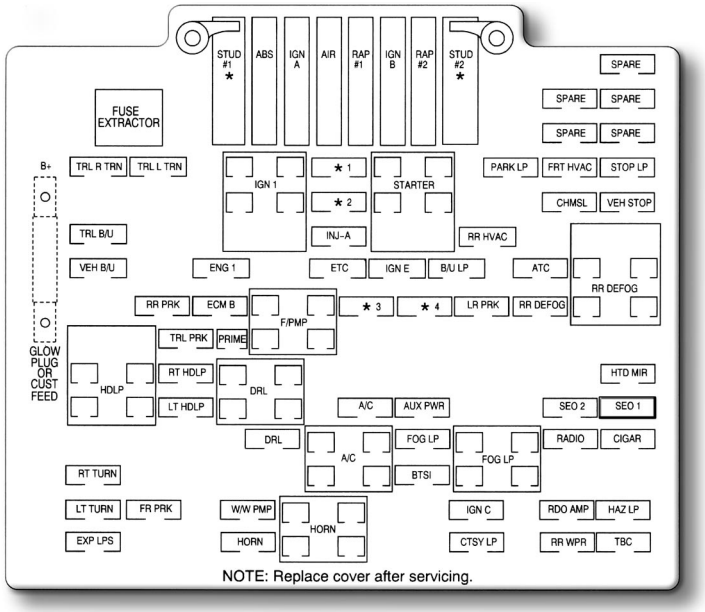
# Vehicles equipped with the GM OnStar system - Step1

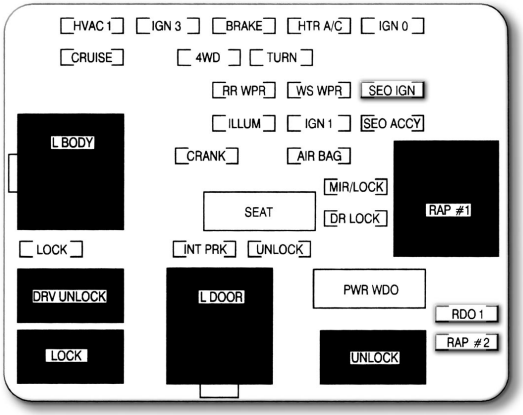
***Turn the ignition OFF!***

Locate the fuse panel in the engine compartment behind the battery on the driver's side. Carefully remove cover and locate the SEO 1 fuse (Special Equipment Option Power) and one fuse labeled INFO.

Location may vary from illustration - consult your user manual.

Remove the fuses with the ignition OFF.






Turn the ignition ON, look and confirm that the OnStar dash light is turned OFF.

If the light is still ON, continue with step 3; if it is OFF, continue with step 4.

## Step 3

***Turn the ignition OFF!***

Locate the fuse panel located on the driver's side dashboard, carefully remove cover and locate the following fuses:

***SEO IGN*** ***RAP 2***

***RDO 1*** ***TBC ACCY***

Location may vary from illustration - consult your user manual.

Remove each fuse with the ignition OFF.

Turn ignition ON, look and confirm that the OnStar Dash light is turned OFF.

Continue and install DiabloSport tune.

## Step 4

Install DiabloSport tune (see page 1).
Once completed reinstall the fuses with the ignition OFF.

# *Installing a Tune into a vehicle*

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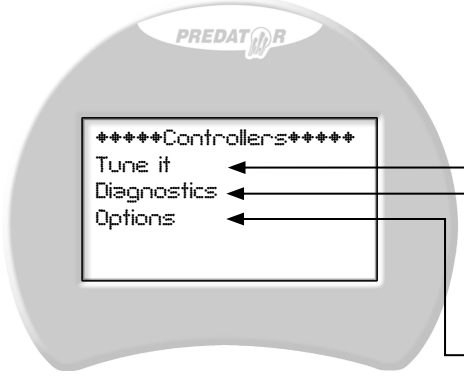
## *Installing the tune into the vehicle*

- Locate the OBD-II diagnostic port on your vehicle. (see reference pictures in Section "iii" and "ix")
- Connect the Predator into vehicle's diagnostic port and turn the ignition key to ON position (***DO NOT start the engine***); the following screen will be displayed:

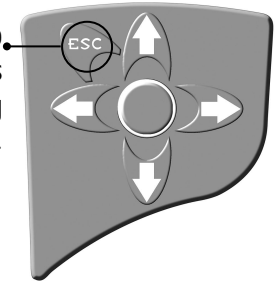



### *Controllers*

***Tune It*** will take the user through the process of programming and modifying the tune for the vehicle.

***Diagnostics*** will take the user through scanning/erasing and live data monitoring.

***Options*** contains tool options and troubleshooting menus.




Press ESC to go to the previous page during procedures.

***Note:***
***To view current tune in vehicle, go to "options" and select "Power Selection Info" This will display last tune uploaded to vehicle.***

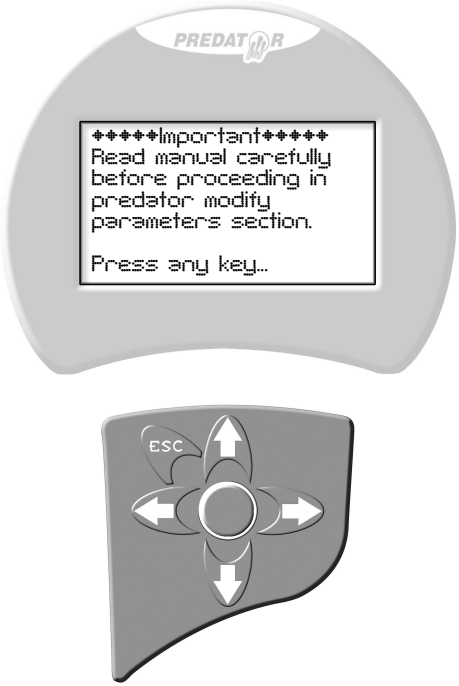
Select "Tune It", read and follow the instructions and disclaimers:

Continue by pressing any key.

*****Disclaimer*****
Predator must be used with
factory tune, otherwise damage
may result to your vehicle. If you
are not sure about your tune,
contact DiabloSport.
Press any key...

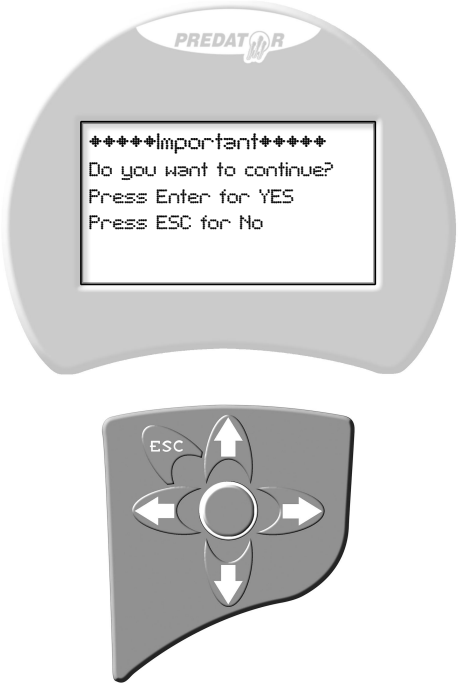
## Installing the tune into the vehicle

Continue by pressing any key.




Press “Enter” to continue.

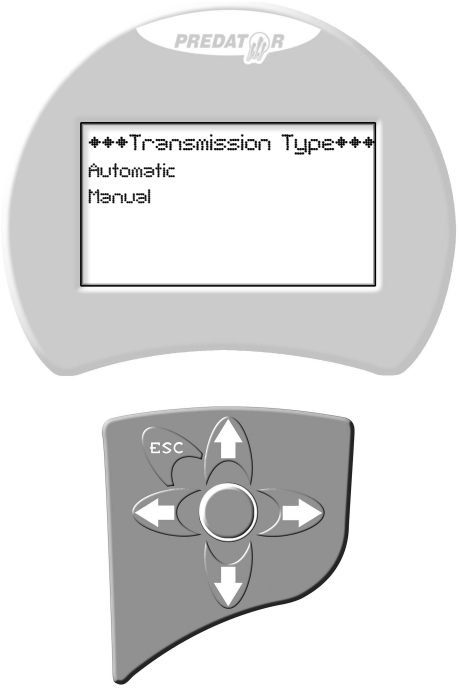
Press “ESC” to return to main menu.



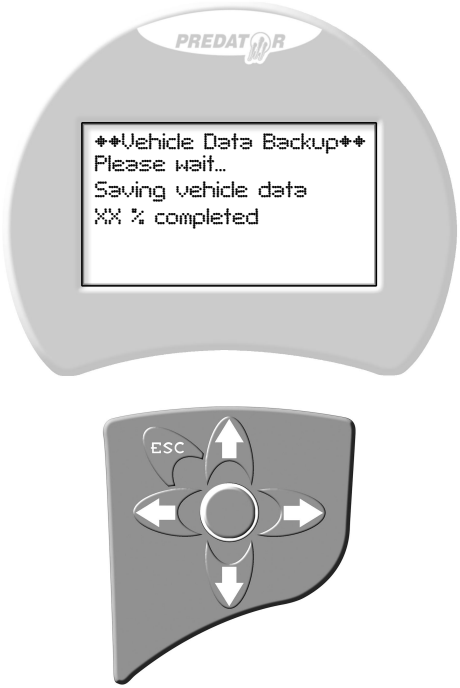
## *Installing the tune into the vehicle*

Select the type of Transmission for your vehicle.

Press "Enter" key.

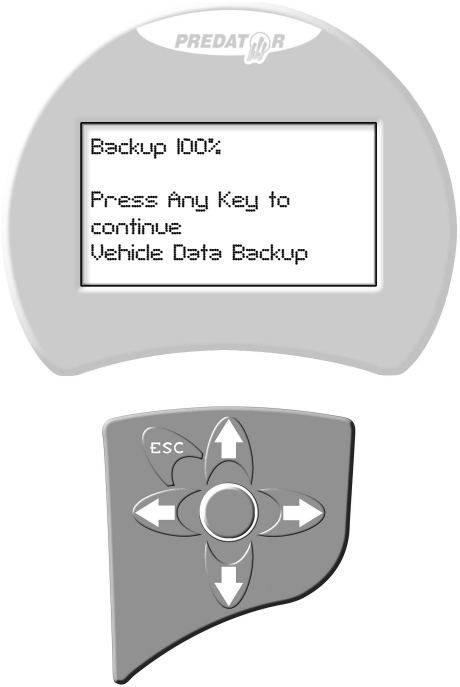



The tool will automatically back up the factory/stock tune. This step will only take place the very first time the Predator is used on the vehicle.
Please wait until completed. This may take several minutes.

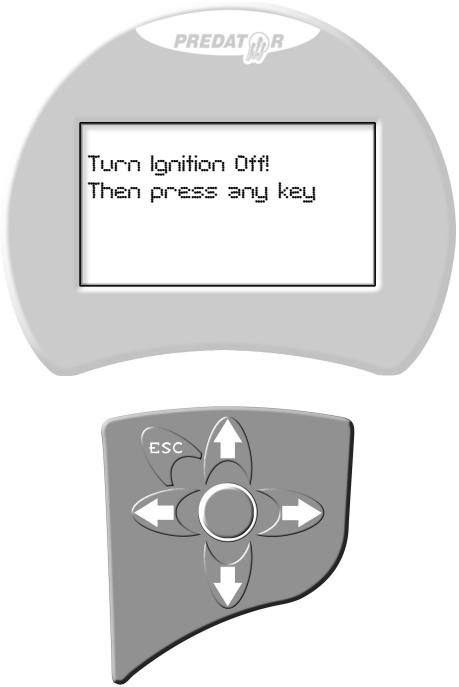


## Installing the tune into the vehicle

During the backup process the gauges might sweep and various messages will be displayed in the message center. This is normal so do not be alarmed.




The predator will count down 10sec until it is ok to proceed.

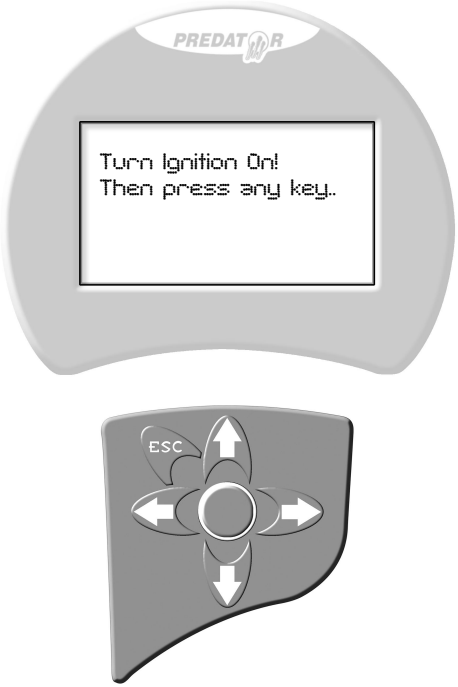


## *Installing the tune into the vehicle*

The Predator will count down 10sec until it is ok to proceed.

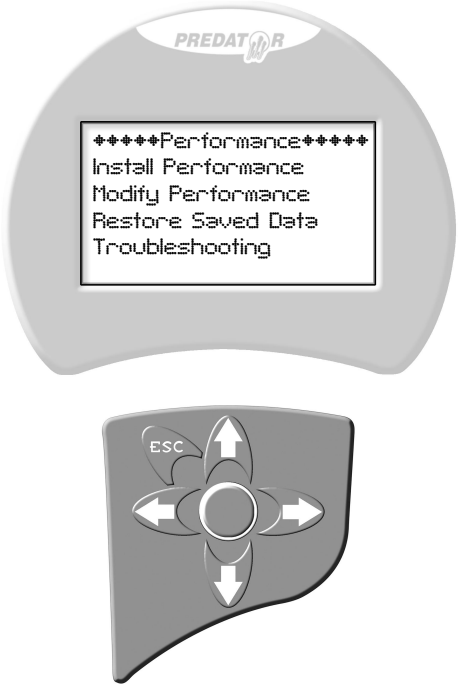
***(DO NOT start the engine)***

*NOTE: Some vehicles may require the key to be turned "OFF" then back "ON" after the 10sec countdown, if the "communicating" message is displayed for more than 30sec.*



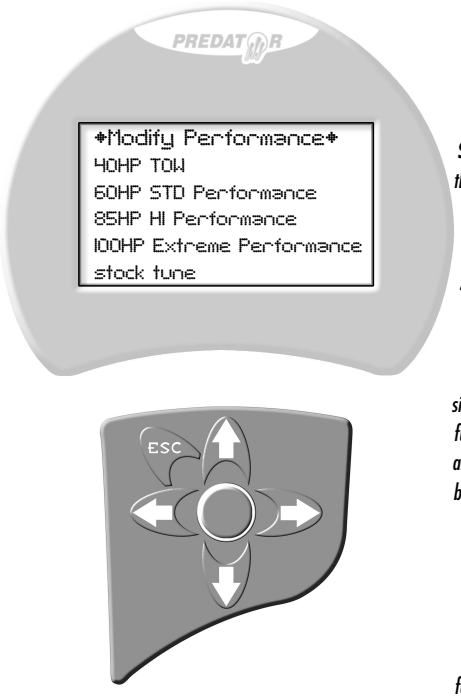

Vehicle Data Backup is now complete. Press any key to continue installing a performance tune.

Select "Install Performance" and press the "Enter".



## Installing the tune into the vehicle

Select desired tune.




***Stock Tune:*** *select this option if modifications to the factory GM tune is desired. such as speed limit and tire/ axle correction.*

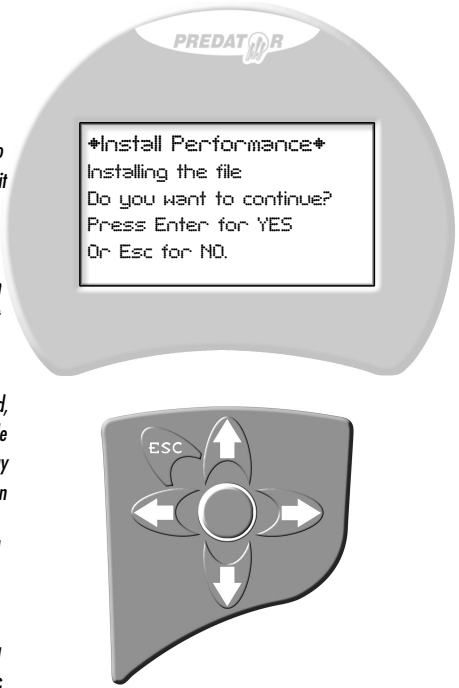
***40 HP (Tow Tune)*** *is designed for towing with weight limitations same as factory, inclines must be factored in.*

***60 HP (Economy Performance tune)*** *is designed for performance but with economy in mind, fuel mileage will always be subject to driving style and may vary from vehicle to vehicle. Towing may be done with this tune as long as weight limitation of 8000lbs is met, inclines must be factored in.*

***85HP (High Performance tune)*** *is designed for street performance with NO TOWING.*

***100HP (Extreme Performance)*** *is designed for extreme street performance with NO TOWING.*

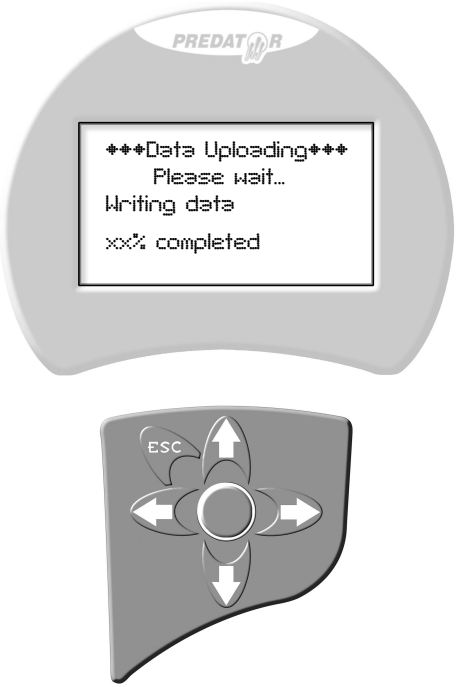
Select "Install Performance"…




*Diablosport strongly recommends that the use of larger diameter performance exhaust and exhaust temperature gauges to any vehicle using performance enhancing tunes.*

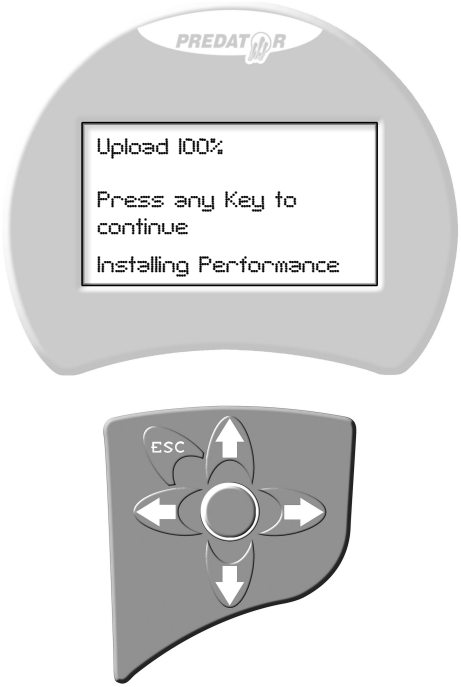
Press “Enter”.

Please wait until installation is complete. This may take several minutes…

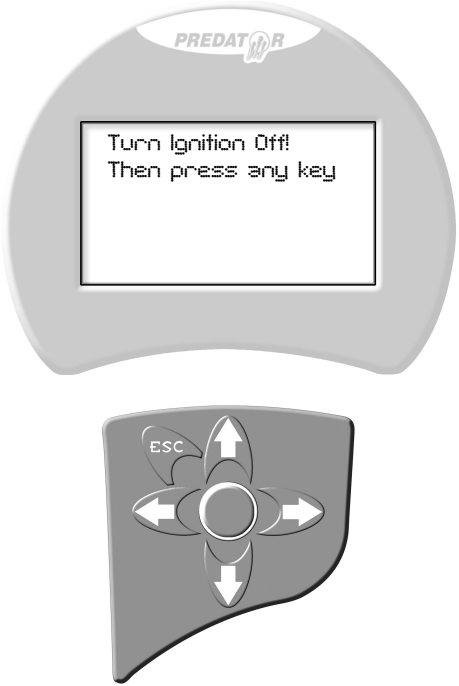



During the installation process the gauges might sweep and various messages will be displayed in the message center. This is normal so do not be alarmed.

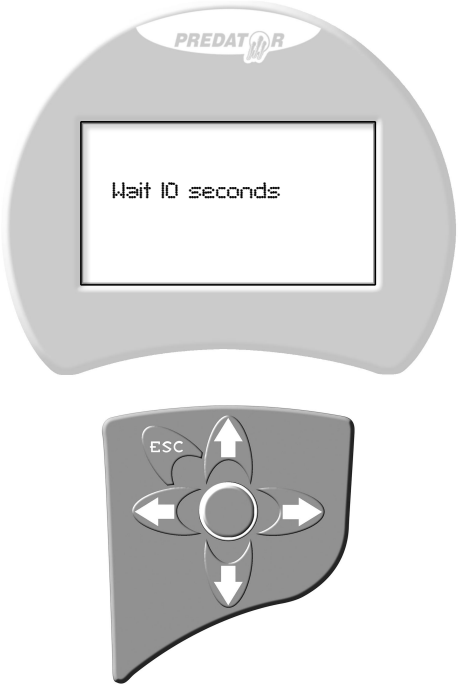
After installation is complete the Predator will prompt you to:

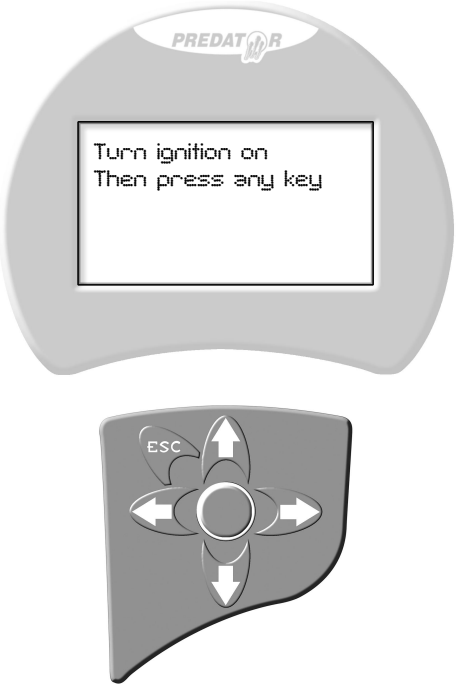


## Installing the tune into the vehicle

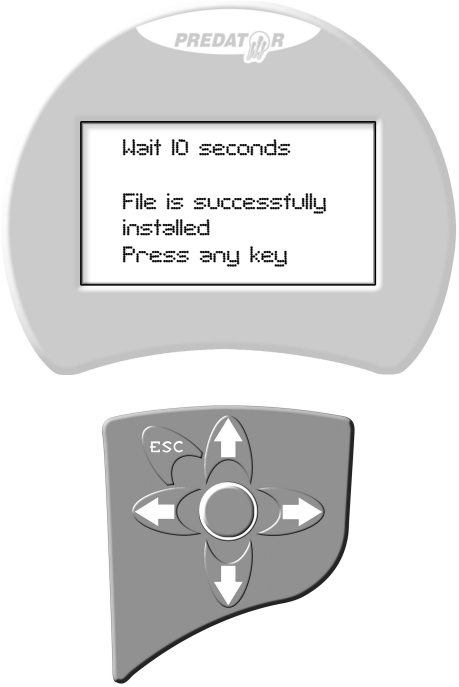



Follow instructions on the screen.






***DO NOT*** *start the engine.*
*After the 10 second delay the tune is successfully installed in vehicle. It is now ok to unplug the Predator and start the vehicle.*



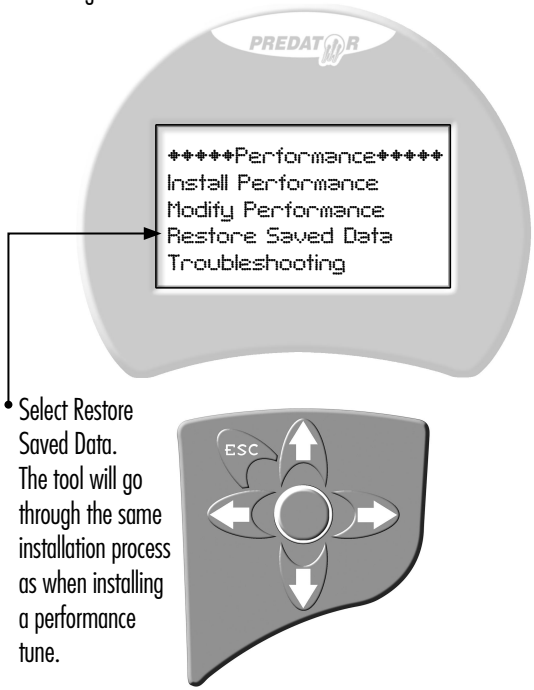
Restoring
factory/stock
tune

## *Restoring the factory/stock tune*

*We recommend restoring the stock tune whenever the vehicle goes in for service.*

*The stock tune can be re-installed at any time using the "restore" feature. This feature will take the DiabloSport tune out and reset the computer to stock. The DiabloSport tune will be saved in the Predator.*

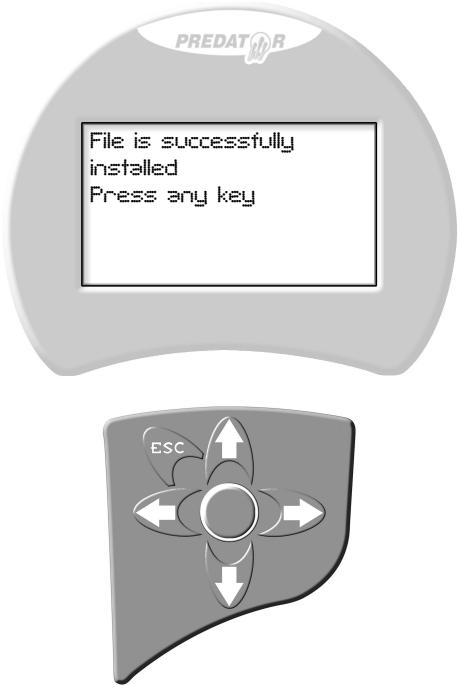
Plug the tool into the diagnostic port, select "Tune It" and go through the same steps as installing a DiabloSport tune. (Refer to install instructions). After the transmission selection you should see the following screen:




Select Restore Saved Data. The tool will go through the same installation process as when installing a performance tune.

## *Restoring the factory/stock tune*

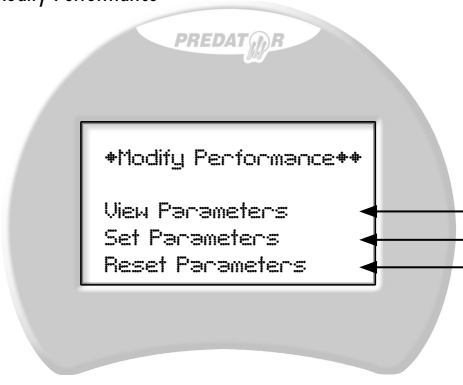
Follow all the steps, and once you see this screen, your vehicle has been restored back to stock tune:

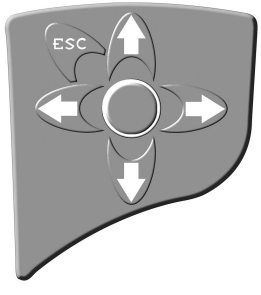


# *Modifying Parameters*

PREDATOR

Select "Modify Performance"



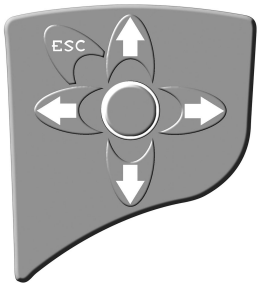



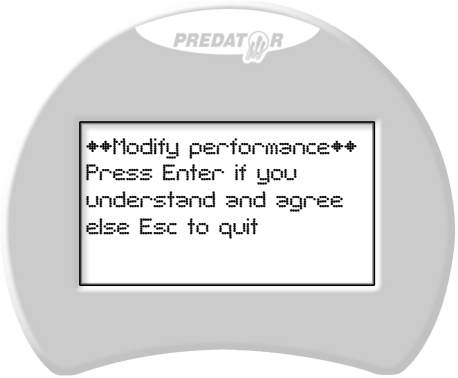

***View parameters*** allows user to see parameter settings

***Set parameters*** allows user to adjust parameter settings

***Reset parameters*** allows user to reset parameters back to original DiabloSport Performance tune. Using the reset feature will reset ***ALL*** modified parameters back to the original DiabloSport Performance tune.

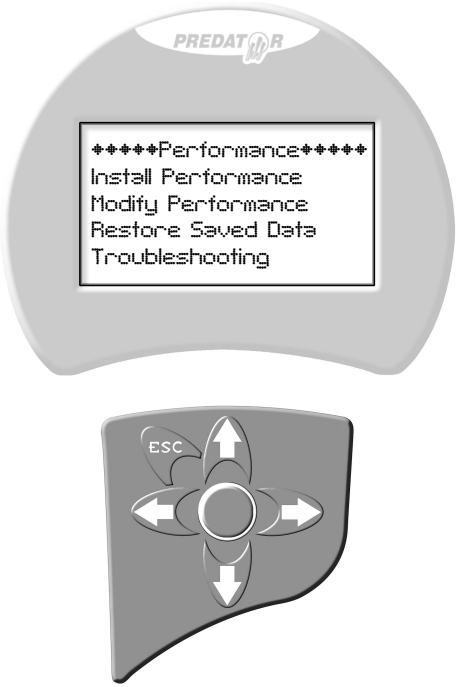
Select "Tune It", go through and ***read carefully*** the disclaimers…



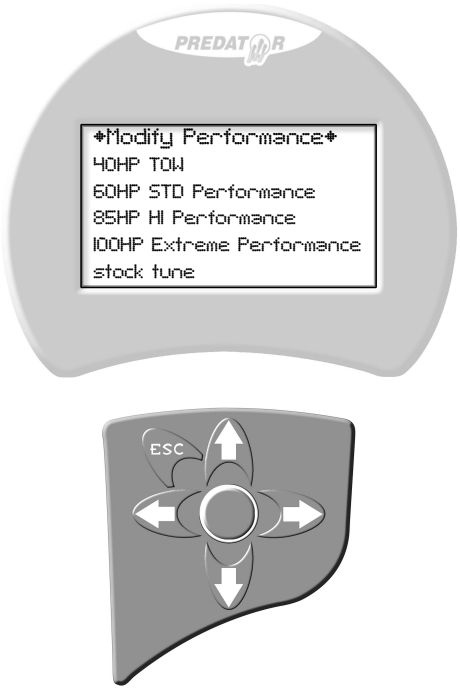


## Modifying Parameters

…until you get to this screen:




Select desired tune you wish to modify and press “enter”.



Press "enter" on the selected parameter.

***Axle Ratio***

***Adjust only if different gears are installed.***

***Corrects speedometer and transmission for gear changes.***

***Speed Limit***

*Allows user to adjust speed the vehicles speed limit, Diablosport do not adjust factory speed limit in any of the Diablosport performance tunes.*

*Factory Wheel Size ***

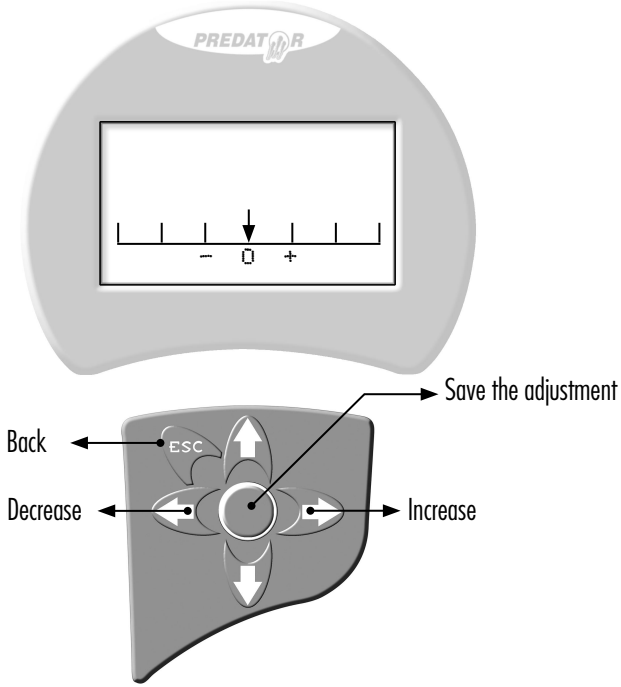
*Enter the fatory tire size; tire width, aspect ratio and wheel size.*

*Actual Wheel Size***

*Enter the actual tire size; tire width, aspect ratio and wheel size.*

*** Please see note on next page.*

Once the desired parameter has been selected, its current value will be shown.
Press "Enter" to save the adjustments.



## Modifying Parameters

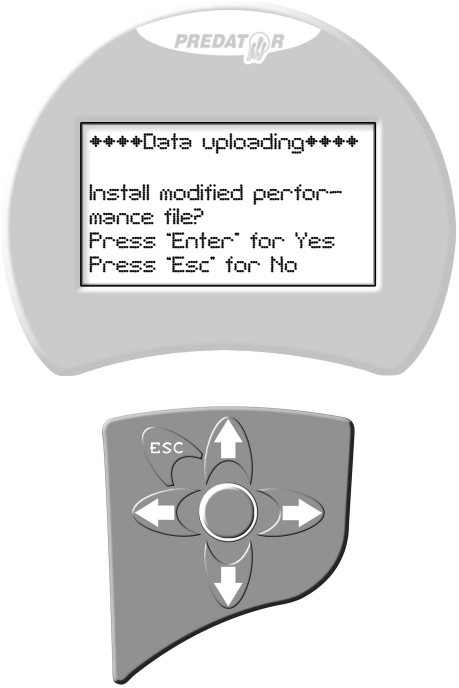
Make desired adjustments and select "Enter" to save.
The new value will be displayed.
Press "ESC" to return to Set Parameters menu.

Once desired adjustments are completed, press "ESC" while in Set Parameters screen.

### ** Note Regarding Tire Size

*Adjust only if speedometer is off due to the increase or decrease in tire size. The factory GM PCM can only calculate up to a certain tire size before it will disable the traction control system, i.e. ABS brake system. It will correct the speedometer but if tire size is over PCM limit, it will trigger a check engine light or an ABS light.*

Press "Enter" to upload the new adjusted tune.
The Predator will continue and install tuned file.



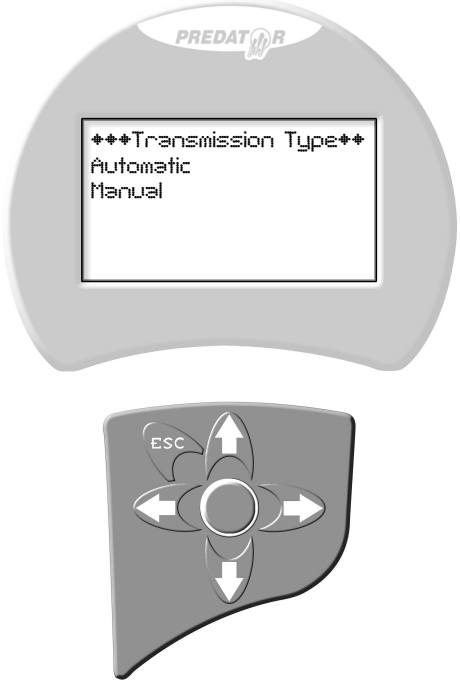
# Diagnostic Section

PREDATOR

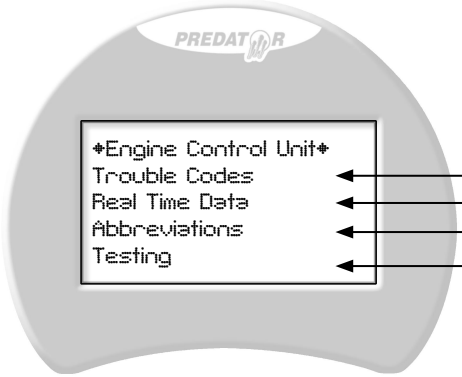
## *Diagnostic Section - How to check and erase the SES light.*

The diagnostic features on this tool can check and erase SES (Service Engine Soon) light as well as monitor live data from sensors supported.

Select “Diagnostics” from main menu.



Select your transmission type, then press "Enter".

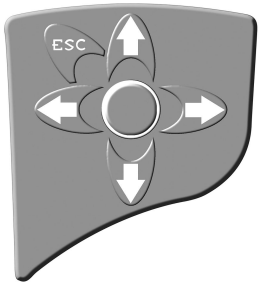



***Trouble Codes:*** Allows user to view and erase trouble codes

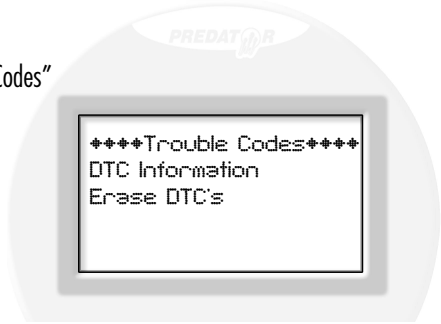
***Real Time Data:*** Displays live data

***Abbreviations:*** Displays the abbreviations used in live data

***Testing:*** This menu is used for troubleshooting only

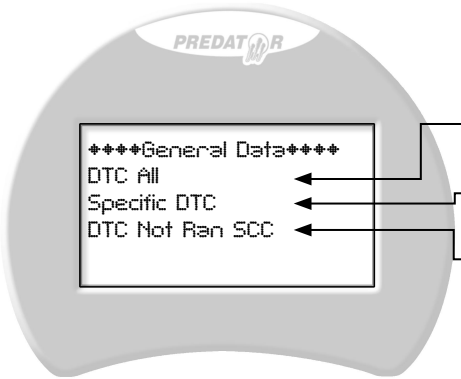


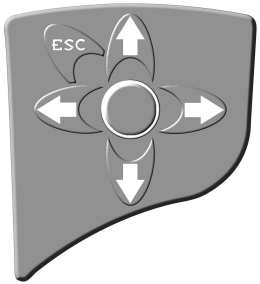

Select "Trouble Codes"



## Diagnostic Section - How to check and erase the SES light.

To view the specific trouble code, select "DTC information".
***DTC*** stands for Diagnostic Trouble Code.




***DTC All:*** View all DTC's

***Specific DTC:*** Enter DTC to view status

***DTC Not Ran SCC:*** Displays what DTC tests where not performed during the DTC check

***NOTE:*** "DTC Not Ran SCC": DTC Not Ran Since Code Cleared. Because the PCM performs tests of modules during driving cycles, some modules are not tested at the time the "DTC All" command is performed. This feature displays what modules where excluded during the "DTC All" test. This information always bases itself from last "Erase DTC's" command performed.

Select "DTC All" to view all DTC codes; once viewed, press ESC twice then select "Erase DTC's", your SES light should now turn off as long as the problem is fixed.

*Monitoring*

*Real Time Data*

PREDATOR

Real time data is just what it implies: the Predator will display an array of sensor input values as the engine is running.

- Select “Diagnostics” from the main screen.
- Select “Real Time Data”
- Monitor desired parameters

***NOTE:*** Only values supported by the vehicle model will be displayed.

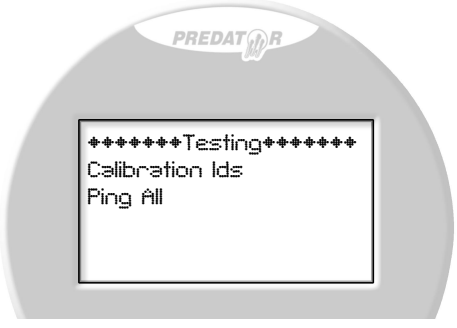
### *Abbreviation*

If you select “Abbreviations”, you will be able to look through a list of all the abbreviations that may be used during the live data session.

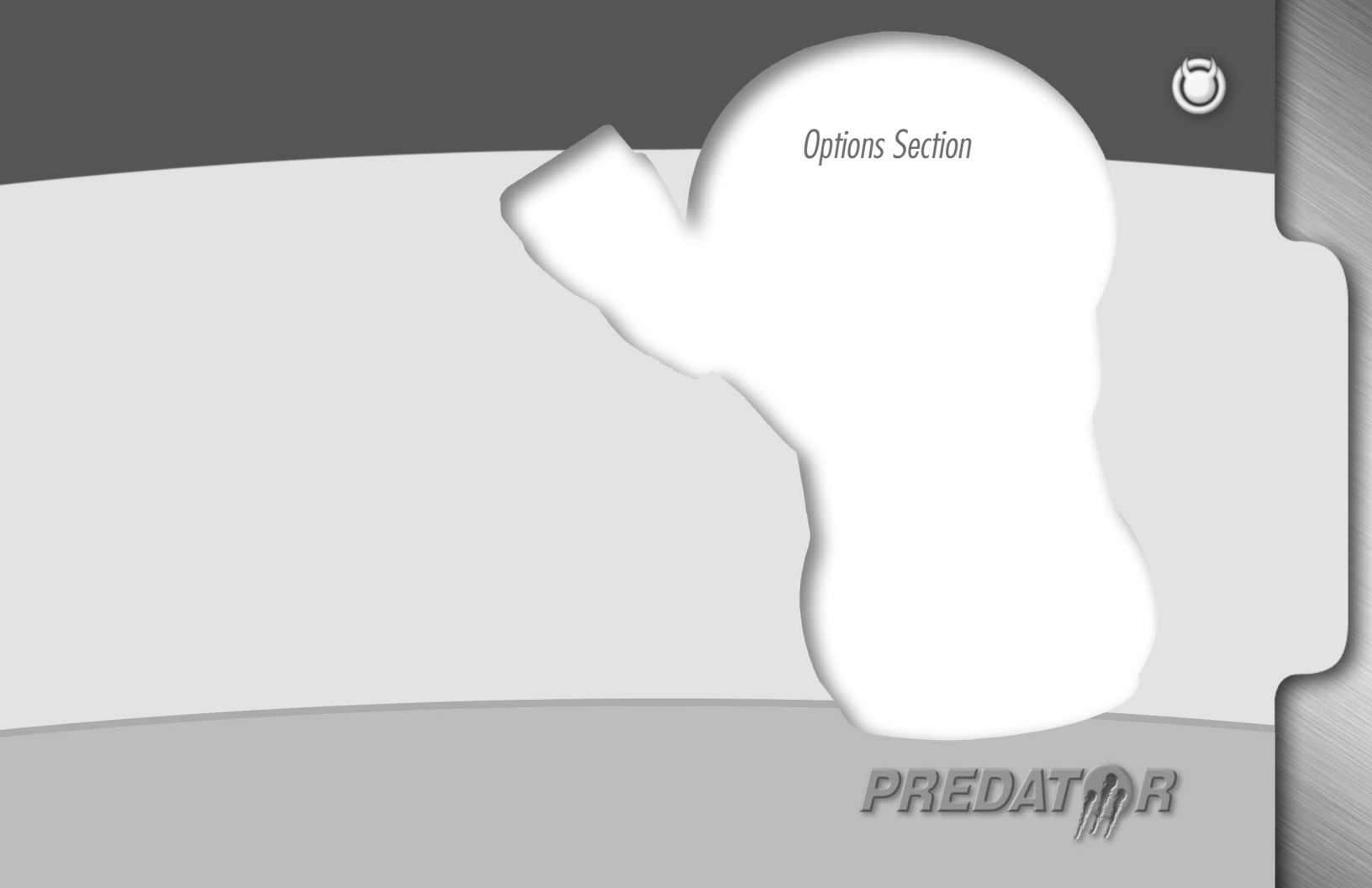
### *Testing*

Unless instructed, DO NOT USE THIS MENU!
The “Testing” menu is designed to aid DiabloSport in troubleshooting your Predator.

If you select “Testing” the following screen will be displayed




| | |
|---|---|
| ***Calibration IDs*** | displays numerical IDs of each section of the tune |
| ***Ping All*** | monitors communication status between PCM and modules |

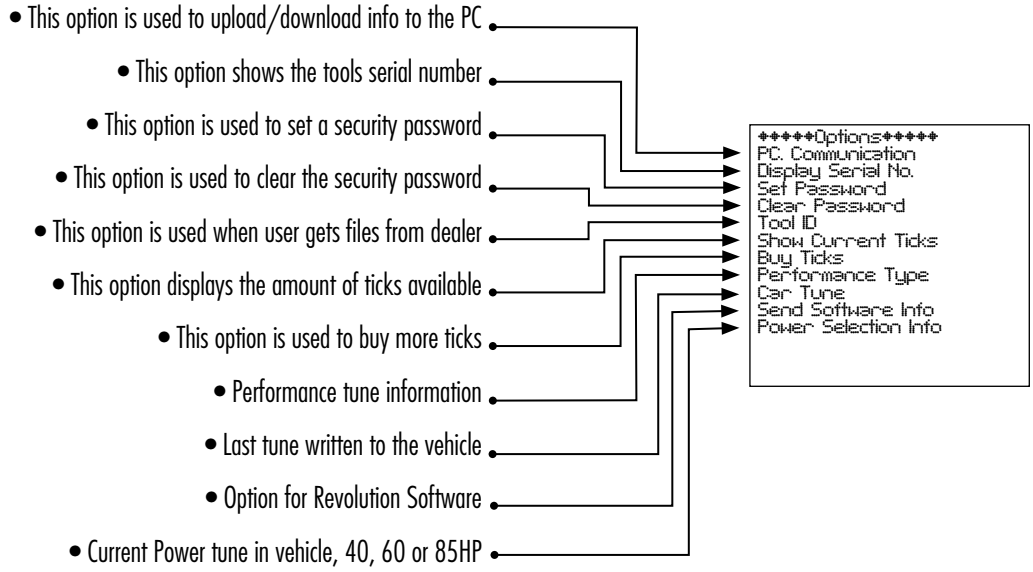

Options Section
PREDATOR

## *Options Section*

The options menu is mainly for the DiabloSport Predator Dealer.

It contains functions for up- and downloading of tunes into the tool; tick purchases as well as specific tool identification.

When you select "Options" the following screen will be displayed:


• This option is used to upload/download info to the PC
• This option shows the tools serial number
• This option is used to set a security password
• This option is used to clear the security password
• This option is used when user gets files from dealer
• This option displays the amount of ticks available
• This option is used to buy more ticks
• Performance tune information
• Last tune written to the vehicle
• Option for Revolution Software
• Current Power tune in vehicle, 40, 60 or 85HP
♦♦♦♦♦Options♦♦♦♦♦
PC. Communication
Display Serial No.
Set Password
Clear Password
Tool ID
Show Current Ticks
Buy Ticks
Performance Type
Car Tune
Send Software Info
Power Selection Info

## Notes

DIABLOSPORT

# DURAMAX

*user manual*

# PREDATOR

**TUNABLE PERFORMANCE PROGRAMMER**

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